

UCLA

UCLA Previously Published Works

Title

Holding the Readmission Gates: Incentivizing Quality and Cost-Effective Care for Heart Failure.

Permalink

<https://escholarship.org/uc/item/7b42q3mw>

Journal

JACC. Heart failure, 5(8)

ISSN

2213-1779

Authors

Fonarow, Gregg C
Ziaeeian, Boback

Publication Date

2017-08-01

DOI

10.1016/j.jchf.2017.04.002

Peer reviewed

EDITORIAL COMMENT

Holding the Readmission Gates Incentivizing Quality and Cost-Effective Care for Heart Failure*

Gregg C. Fonarow, MD,^{a,b} Boback Ziaieian, MD, PhD^{a,c}

Clinicians, hospital administrators, and medical journals cannot escape discussions of 30-day mortality and readmissions rates for heart failure (HF). Since the passage of the Affordable Care Act and Medicare's Hospital Readmissions Reduction Program, substantial financial penalties are now imposed on health care systems for failing to meet expected rates of readmission for 5 common hospital conditions: acute myocardial infarctions, HF, community acquired pneumonia, chronic obstructive pulmonary disease, and elective total hip arthroplasty and total knee arthroplasty. While "value-based" payment models are expanded, expectations are that bundled-payment programs are the future as fee-for-service reimbursement models are reduced (1). In the setting of shifting financial incentives for care delivery, there is concern that hospitals may face further increased pressure to shorten length of stay (LOS) and discharge patients prematurely at increased risk for both mortality and readmission. In this issue of *JACC: Heart Failure*, a well-conducted observational study from Ontario, Canada, describes the relationship between LOS on HF 30-day mortality and readmission, and provides valuable insights into HF, cardiovascular, and noncardiovascular 30-day readmissions and mortality among HF patients as a function of LOS (2).

A primary admission for HF is a harbinger for negative health outcomes. Among Medicare HF patients, the risk for rehospitalization at 30-days is 21.9% and death at 1-year is 35.8% (3,4). Yet, the daily readmission risk does not decrease by half until nearly 40-days after an index hospitalization (4). How much of the risk in readmissions and mortality is due to the quality of care provided over a few days or more in the hospital? The authors in this issue of *JACC: Heart Failure* studied patients discharged to home with a primary HF admission in Ontario, Canada. Given the concerns for premature discharge and insufficient medical optimization, they assessed the 30-day readmission and mortality risk associated with shorter and longer LOS. They report that the risk of readmission is increased for both admissions shorter and longer than 5 to 6 days. In comparison, incrementally longer LOS was monotonically associated with a higher mortality risk at 30-days. The study suggests that shorter LOS may contribute to an increase in the risk of HF and cardiovascular readmission, but not of short-term mortality, and may in fact help decrease the risk of non-cardiovascular readmissions.

Although this is intriguing and lends support to the clinical impression that some HF patients are discharged from the hospital prematurely, perhaps as result of economic incentives, a key question is whether these findings should be taken as actionable. There remains a long chain of unmeasured factors to be explored from associations within an administrative database to the quality of care during HF hospitalization for short and long hospital stays. Much of the relationship between LOS and outcomes relates to patient complexity and factors unmeasured in administrative or clinical data. Therefore, models may not adequately adjust for bias based on patient differences and disease severity. A shorter LOS is likely to relate to a number of factors: less patient

*Editorials published in *JACC: Heart Failure* reflect the views of the authors and do not necessarily represent the views of *JACC: Heart Failure* or the American College of Cardiology.

From the ^aDivision of Cardiology, David Geffen School of Medicine at UCLA, Los Angeles, California; ^bAhmanson-UCLA Cardiomyopathy Center, UCLA Medical Center, Los Angeles, California; and the ^cDivision of Cardiology, Veteran Affairs Greater Los Angeles Healthcare System, Los Angeles, California. Dr. Fonarow is a consultant with Amgen, Novartis, St. Jude Medical, and Medtronic. Dr. Ziaieian has reported that he has no relationships relevant to the contents of this paper to disclose.

complexity, lower symptom burden, a patient eager for discharge who minimizes symptoms, or providers who are pressured to reduce the hospital census and admit sicker patients. The list of possible explanations outside of incentives alone is quite extensive.

Expecting to remedy readmission risk with longer hospitalizations as a population-based strategy will likely not result in better patient outcomes or cost-savings for payers. Although prolonged hospitalization may improve the amount of diuresis and potentially lower HF related admissions, it comes at the expense of exposure to hospitalization risks: nosocomial infections, deep vein thrombosis, stress, sleep disturbances, and poor nutrition, along with increased – largely unreimbursed – financial costs.

Highlighting 30-day readmissions as both an outcome (measurable metric) and a basis for financial penalties is rife with conceptual difficulties. Despite knowing that hospitals service communities with significant variation in patient populations and outpatient resources, risk models are completely inadequate for adjusting or predicting the risk of readmission (5). Using administrative and detailed clinical data across a variety of advanced statistical models leaves the ability to predict readmission risk with C-statistics no better than 0.62 (6). Regardless of this limitation, hospitals are given “risk-adjusted” readmission rates and financially penalized based on performance. Performance that is risk-adjusted to what? If a predictive model performs poorly, then risk-adjusted assessments are arbitrary at best. When models do not include an assessment of disease severity, social

support, cognitive function, detailed socioeconomic status, barriers to accessing care, then hospitals are left with a greater share of the unexplained variation. There is also the risk of hospitals becoming so focused on this 1 penalty-based metric that they forgo meaningful performance improvement efforts related to short-, intermediate-, and long-term mortality reduction along with neglecting other urgent issues, such as patient safety. There is the very real risk that unintended consequences of Medicare’s Hospital Readmission Reduction Program may emerge.

Improving the quality of HF care requires maximizing the evidence-based, guideline-directed treatments that we know work. If patients can be discharged home safely with adequate precautions even with a very short LOS, they would prefer to be out of the hospital. For this reason, using the hospitalization as an opportunity to maximize guideline recommended therapies, provide safe discharge practices, excellent transitions of care, and close outpatient follow-up should be emphasized. Readmissions should not be the sole focus of our prevention effort; rather the prevention of the initial and all hospitalizations should be the goal. All aspects of HF care are intended to maximize the days spent at home and the quality of a patient’s life.

ADDRESS FOR CORRESPONDENCE: Dr. Gregg C. Fonarow, Ahmanson-UCLA Cardiomyopathy Center, Ronald Reagan UCLA Medical Center, 10833 LeConte Avenue, Room A2-237 CHS, Los Angeles, California 90095-1679. E-mail: gfonarow@mednet.ucla.edu.

REFERENCES

1. Mechanic RE. When new Medicare payment systems collide. *N Engl J Med* 2016;374:1706-9.
2. Sud M, Yu B, Wijeyesundera HC, et al. Association between short or long length of stay with 30-day readmission and mortality in hospitalized patients with heart failure. *J Am Coll Cardiol HF* 2017;5: X-XX.
3. New Y, Health H, Corporation S, et al. Medicare Hospital Quality Chartbook Performance Report on Outcome Measures: September 2014. New Haven, CT; 2014. Available at: <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/OutcomeMeasures.html>. Accessed April 5, 2017.
4. Dharmarajan K, Hsieh AF, Kulkarni VT, et al. Trajectories of risk after hospitalization for heart failure, acute myocardial infarction, or pneumonia: retrospective cohort study. *BMJ* 2015; 350:h411.
5. Herrin J, Andre JS, Kenward K, et al. Community Factors and Hospital Readmission Rates. *Health Serv Res* 2014;50:1-20.
6. Frizzell JD, Liang L, Schulte PJ, et al. Prediction of 30-day all-cause readmissions in patients hospitalized for heart failure. *JAMA Cardiol* 2016;58:379-85.

KEY WORDS heart failure, length of stay, mortality, readmissions